when applied, and both preparations when applied sequentially in effective amounts, being adapted to react with each other to impart physical characteristic to the substrate.

31. (Amended) The kit of claim 30, wherein the metal salt preparation and/or the oxygen source preparation further comprises an ~~additive~~ additive selected from the group consisting of thickener, ~~alcohol~~, emulsifier, coloring agent, pigment, dye, [bleach,] sealer, finishing agent, [tint,] acrylic finish, latex finish, polyurethane, [alcohol,] gelling agent, tabletting agent, surfactant, buffer, citric acid, tannic acid, acetic acid, other acid, ~~base~~, [color, salt,] stabilizer, antimicrobial, antifungal, insecticide, insect repellant, ultraviolet protectant, and fire retardant, and combinations.

REMARKS

Reconsideration and allowance are respectfully requested.

The above amendments address the 35 U.S.C. 112 issues on pages 4-5 of the office action. Antecedence for "oxide" exists in the original application, for e.g., page 6, line 5, describes oxides that can be reduced to release metal ion. No new matter has been added. Claim 2 has merely been reformulated as a linking product-by-process claim. Entry of the amendments and allowance are respectfully requested.

Claims 1, 2, and 30-36 are patentable over each of the Dombay, Zemans, Gentile, Brown, Hall and SU 297 references.

Dombay relates to wood coloring in which the reference

mandates the use of methylated spirit, which the present invention particularly avoids. The present specification describes the ill-effects of prior art procedures that mandate alcohol based substances which harm the environment. In fact, Example 4, relied on by the Examiner, provides for 150 ml of methylated spirit which is many times the quantity of the minuscule amount of cupric sulphate (0.5 g.) required in that example.

Nothing in the entire reference teaches or suggests the unique kit that has an aqueous solution of a mineral salt and an aqueous solution of a peroxide, with the mineral salt solution being applied prior to the peroxide solution and the in situ reaction of the applied substances with the substrate.

Zemans relates to a bleaching process in which the wood is treated with sodium carbonate dried, then treated with hydrogen peroxide and again dried, before being treated with a weak acid. That teaching clearly leads away from the invention which does not require acids, the detrimental effects of acid use having been pointed out in the present specification. Zemans sodium carbonate is not the mineral salt being defined in the present invention and Zemans invention relates to the release of oxygen for effecting bleaching operation, which has nothing to do with the unique coloring provided by the present invention.

Gentile relates to production of wood pulp which has nothing to do with the substrates of the present invention. The Gentile pulp does not require any desirable color effects nor retention

of color as would be provided by the present invention. Gentile seeks to provide a stabilizing flock or sol within the chips before refining them. It is not understood as to how that has anything to do with the claimed in situ reaction of the mineral salts and peroxides and the unique coloring process provided by the present invention.

Brown, from an unrelated art, provides for dyeing hair to promote melanogenesis in air, which has nothing to do with substrate coloring. Brown defines dyeing the hair with intermittent intervals to a dark color and then treating with hydrogen peroxide to obtain the desired color. That is contrary to the claimed in situ reaction of the mineral salts and hydrogen peroxide with the substrate being treated.

Hall relates to treatment of hair/wool with a ferrous salt and chelating agent. However, that has nothing to do with the claimed unique kit that has an aqueous solution of a mineral salt and an aqueous solution of a peroxide, with the mineral salt solution being applied prior to the peroxide solution and the in situ reaction of the applied substances with the substrate.

SU '297 relates to leather glove production by tanning in a combined hydrogen peroxide-sodium hydroxide solution and then treating with aluminum slats and dyeing. The reference teaching seeks to solve the problem of repeated tanning and pickling of leather rather than having anything to do with color preservation as uniquely provided by the present invention.

In fact, none of the references teach or suggest the claimed

two step in situ treatment with the unique kit defined in the present claims. The present invention uniquely provides treatment of all substrates including light colored wood and is exclusively a two part process.

The invention provides an aqueous solution of a mineral salt thereby providing water soluble ions of mineral salts which are applied to a suitable substrate and allowed to briefly dry. In a second step the water soluble mineral salts transition into insoluble mineral oxide compounds which form inside and around the cellulose fibers. The agents used to transition the mineral salt ions into insoluble oxide compounds include dilute hydrogen peroxide solutions, to prevent harm to the environment, and other dilute strength agents such as sodium peroxide and sodium hydroxide. Again, stronger solutions pose a greater threat to the environment and user.

The present process is expressly useful in enhancing the natural nuances of a particular piece of substrate, such as wood, thereby giving it a more natural color than a conventional stain. The process enhances the variations of color within a given species of wood, therefore differing from the prior art, all of which aim to provide more uniform color to a piece of wood or pieces of wood of the same species being utilized in a piece of furniture.

The commercial viability of the present process relies on enhancing the naturally occurring qualities of a specific wood particularly lighter colored species such a Pine, Larch, Poplar,

Alder, Maple, Fur, Ash, Bamboo (a grass), Hackberry, Black Willow, Oak, Birch, and others. All of those are considered colored woods, many of which are rapidly grown, sustainable harvestable species.

The prior art expressly intends to impart a stabilized color to dark and medium colored woods by utilizing hypochlorite, persulphate and peroxide compounds. The use of mineral salt ions specifically Iron, Zinc or Silver is not employed or mentioned. In fact, the reference relies on the exclusive use of hypochlorite, persulphate and peroxide compounds to either lighten or darken the color of wood.

Contrastingly, the claimed process is expressly concerned with darkening the color of the top-most layer of wood cellulose and other substrates by transitioning water soluble mineral ions into oxides within the top-most layer of the substrate. The process bonds the transitioned minerals to the cellulose fibers and creates a more or less stable color which may slightly lighten or darken over time.

The light fastness is considerably better than prior art dyes (specifically aniline dyes) used to color wood and other substrates. The primary commercial use for the invention is to impart a range of colors (earth tones primarily) to light and medium colored woods and to use as an alternative to conventional staining products which may contain hazardous VOC's or other hazardous chemical compounds. Also, conventional dyes and colorants for wood does not enhance the natural qualities of the

wood or other substrate as does the Auger Mineral Stain Process.

Minerals used in the present invention are expressly create color within the wood or substrate. Minerals utilized alone or in combination are: Iron, Zinc and Silver salts, specifically Iron I Chloride, Sulfate and Perchlorate; Zinc Perchlorate, Silver Perchlorate and Silver Nitrate, among others.

No potassium persulphate, sodium persulfate, ammonium persulfate, sodium carbonate, acetic acid, glacial acetic acid, potassium permanganate, cupric ions or ammonia are used in the claimed process. Thus, the claimed invention always imparts the substrate with an alkaline pH.

Contrary to the above mentioned patent which suggests a minimum 5 minute saturation of the solution on the substrate, the preferred application of the present process is a brief application utilizing a brush, sprayer (power or manual), roller or other method of application which effectively coats the top-most layer of the substrate with the mineral salt solution.

Proper surface preparation consistent with any preparatory procedure used to prepare wood for finishing allows for adequate penetration of the mineral salt solution. Additionally an anionic surfactant may be added to the mineral salt solution to aid in the penetration of the mineral salt solution, this is especially useful for industrial and manufacturing situations where dust, grease and other debris may be present and form surface tension prohibiting the mineral salt solution (A) from penetrating the substrate.

Also, contrary to the prior art, and according to the invention the solution is completely dry prior to the application of the (catalyst) solution.

Contrary to the prior art, the present invention transitions the European Oak instantly through its process to the yellow color the prior art is attempting to avoid. By producing the yellow or "aged" color Auger allows woodworkers to match the tone of "aged" or "antique" wood whereby giving woodworkers the opportunity to make reproductions, restore or color wooden articles in a manner consistent with the color expected from wood which has acquired an "aged" or "antique" appearance.

Nothing in the references, either singly or in combination, teaches or suggests the claimed features. Therefore, the references cannot anticipate nor render obvious any of the claims.

Reconsideration and allowance are respectfully requested.

Respectfully,

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